

Docket 79888AEK  
Serial No. 01333

1637

#8158  
2/8/03

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:  
David Clarke, et al

PHOTOGRAPHIC COUPLERS  
HAVING IMPROVED IMAGE DYE  
LIGHT STABILITY

Serial No. 09/856,396

Filed May 22, 2001

Group Art Unit: 1637

Examiner: Christine L. Maupin

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January 28, 2003  
Date

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Commissioner for Patents  
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Transmitted herewith is an amendment in the above-identified application:

- ☒ No additional fee is required.  
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FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM					+ 280	\$ 0
					TOTAL	\$ 0

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(For Extensions of Time and other Petitions to the Assistant Commissioner)

Arthur E. Kluegel/dlm  
Telephone: (585) 477-2625  
Facsimile: (585) 477-1148

[Signature]  
Attorney for Applicants  
Registration No. 25,518



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Customer No. 01333

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In re Application of

David Clarke, et al

PHOTOGRAPHIC COUPLERS  
HAVING IMPROVED IMAGE  
DYE LIGHT STABILITY

Serial No. 09/856,396

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Sir:

Group Art Unit: 1637

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**REQUEST FOR RECONSIDERATION**  
**UNDER 37 C.F.R. 1.115**

This is in response to the Office Action mailed 01 November 2002.

Of claims 13-24, the Examiner has rejected claims 13-20, 23, and 24 and has objected to claims 21 and 22. Claims 13-18, 20, 23, and 24 are rejected pursuant to 35 USC 103 as obvious over Fujimatsu, US 4,299,914. The Examiner relies on the Fujimatsu teaching of compound 18 wherein a sulfonamide group with an alkyl substituted nitrogen is in a meta position compared to the permitted ortho or para position in the present claims. She further relies on the presence of ortho sulfonamides in other compound examples (without the critical substituted nitrogen) to conclude that the use of the compound with the substituted nitrogen in the ortho or para position is obvious. The Applicants respectfully disagree.

The present invention is based on the discovery that a substituted nitrogen in the sulfonamide group is unexpectedly effective to improve light stability of the cyan dye formed upon development. The data in the application table at page 33 compare the results of I-1 and CC-1, which differ only by the presence of a methyl vs. hydrogen on the sulfonamide nitrogen. The reference provides no suggestion of

the advantageous results in light stability obtained when the nitrogen is substituted vs. unsubstituted and all of the working examples, representative of the best mode of the invention, contain a hydrogen on the nitrogen.

The description of the problem solved by the reference appears to include a shotgun disclosure of nearly all necessary properties of photographic couplers/dyes ranging from benzyl alcohol effects, reactivity, sensitivity, solubility, dispersibility, hue, stability, etc. However, none of the compounds tested, whether comparative or inventive, contains a substituent on the sulfonamide nitrogen. In the present case, the light stability is demonstrated to be such that the dye density loss is reduced from 40% to 27%, a relative 32% reduction in loss when the sulfonamide nitrogen is substituted.

The present claims are directed to an  $\alpha$  phenoxy substituent bearing an ortho or para sulfonamide substituent in Y or Z while the other of Y or Z is a fluorinated alkyl group, an aryl group, or a heterocyclic group. Compound 18 does not satisfy these requirements, and there is no suggestion in Fujimatsu that compounds of the type claimed would provide such greatly enhanced light stability.

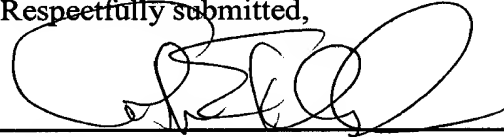
The Examiner contends that it would be obvious to employ an ortho substituent in compound 18 as used in the other exemplary compounds. The Examiner has not demonstrated, however, any reason or motivation to make the claimed selection since the effect of the nitrogen substituent is not taught, disclosed or suggested.

Claim 19 stands rejected over Fujimatsu further in view of Usagawa, US 4,368,257 (=GB 2070000), which suggests the para position for a sulfonamide or sulfamoyl substituent. It is believed that the combination of these two references does not cure the principal defect in the teachings of the references, which is the absence of any teaching of the unexpected results obtained when selecting Y and Z as claimed so as to include a substituted sulfonamide nitrogen. Usagawa teaches that para-phenylene is the most preferable, but if one compares Table 2 in Fujimatsu (Usagawa is a coinventor) to that of Usagawa, it appears that the "light resisting property" is diminished in Usagawa. Thus, it is not believed that one skilled in the art with the cited references before him would arrive at the invention. There remains no motivation to arrive at the claimed combination with a substituted sulfonamide nitrogen since the arrangement with hydrogen on the nitrogen is the only one

employed in working examples, that selection would be presumed to be preferred; at least, superiority of the substituted nitrogen would not be inferred by one skilled in the art.

In view of the foregoing amendments and remarks, reconsideration of this patent application is respectfully requested. A prompt and favorable action by the examiner is earnestly solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'A. Kluegel', written over a horizontal line.

Attorney for Applicants  
Registration No. 25,518

Arthur E. Kluegel/dlm  
Telephone: (585) 477-2625  
Facsimile: (585) 477-1148